

Surf
Surf
*A¹
out*

at least two closure members, one of the at least two closure members disposed proximate one channel of the at least two channels, the other of the at least two closure member disposed proximate the other channel of the at least two channels, each closure member movable to a plurality of positions, a first position permitting air flow in each channel from the inlet and a second position preventing communication in one channel of the at least two channels and the inlet; and

at least two actuators coupled to a respective one of the at least two closure members, the at least two actuators responsive to one of the air mass sensors in each channel of the at least two channels to move a respective one of the at least two closure members between the first position and the second position.

3. (Amended) An air mass flow controller valve for fuel cells, the flow controller valve comprising:

an inlet disposed along a first axis;
at least two channels in communication with the inlet, the at least two channels disposed along a second axis;

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at least one air mass sensor disposed proximate one of the at least two channels;
a seat portion disposed in one channel of the at least two channels;
at least two closure members, one of the at least two closure members disposed proximate one channel of the at least two channels, the other of the at least two closure member disposed proximate the other channel of the at least two channels, each closure member movable to a plurality of positions, a first position permitting air flow in each channel from the inlet and a

Sub B'
second position preventing communication in one channel of the at least two channels and the inlet; and

at least two actuators coupled to a respective one of the at least two closure members, the at least two actuators responsive to one of the air mass sensors in each channel of the at least two channels to move a respective one of the at least two closure members between the first position and the second position,

wherein the inlet further comprises a portion having a first cross sectional area and a second cross sectional area proximate the at least two channels, the second cross sectional area being greater than the first cross-sectional area.

4. 4. (Amended) An air mass flow controller valve for fuel cells, the flow controller valve comprising:

an inlet disposed along a first axis;

at least two channels in communication with the inlet, the at least two channels disposed along a second axis;

at least one air mass sensor disposed proximate one of the at least two channels;

a seat portion disposed in one channel of the at least two channels;

at least two closure members, one of the at least two closure members disposed proximate one channel of the at least two channels, the other of the at least two closure member disposed proximate the other channel of the at least two channels, each closure member movable to a plurality of positions, a first position permitting air flow in each channel from the inlet and a second position preventing communication in one channel of the at least two channels and the inlet; and

at least two actuators coupled to a respective one of the at least two closure members, the at least two actuators responsive to one of the air mass sensors in each channel of the at least two channels to move a respective one of the at least two closure members between the first position and the second position,

wherein the at least one airmass sensor comprises a pressure sensor disposed in the inlet and a position sensor that senses the position of the actuator.

6. (Amended) The valve of claim 1, wherein each of the at least two channels further comprises an inlet portion disposed along the second axis and an outlet portion disposed along a fourth axis spaced from the second axis by a distance, the distance between the second axis and the fourth axis defining the seat portion.

9. (Amended) The valve of claim 6, wherein the at least two actuators further comprise a housing for each actuator, the housing having a first wall and a second wall disposed along the third axis, a third wall disposed along the second axis and a fourth wall disposed along the fourth axis, the first and third walls formed as part of the inlet portion, the second and fourth walls formed as part of the outlet portion.

14. (Amended) A method of distributing metered airflow from an inlet to a plurality of channels in a fuel cell, each channel of the plurality of channels provided with an air mass flow sensor that provides a signal indicating measured air amount flowing in each channel of the plurality of channels, a plurality of closure members, each closure member being contiguous to a seat portion and disposed in a respective channel of the plurality of channels, each closure

member being movable by an actuator between a first position to permit flow and a second position to prevent flow, the method comprising:

flowing air to the inlet;

determining an air mass amount in each channel of the plurality of channels; and

metering the air mass amount provided to each channel from the inlet as a function of a

desired air amount and the air mass amount determined in each channel,

wherein the flowing air further comprises flowing air in a passage with a first portion and a second portion, first portion having a first cross section area and the second portion with a second cross sectional area, the second cross sectional area being greater than the first cross sectional area.

Please add new claim 19 as follows:

19. (New) An air mass flow controller valve for fuel cells, the flow controller valve comprising:

an inlet disposed along an inlet axis;

first and second channels in communication with the inlet, the first and second channels being respectively disposed along a first channel axis and a second channel axis;

an air mass sensor disposed proximate the first channel;

first and second seat portions being respectively disposed in the first and second channels;

first and second closure members being respectively disposed in the first and second channels, each closure member being movable between a first position permitting air flow in its respective channel and a second position preventing airflow in its respective channel; and

the 1st and 2nd
first and second actuators being respectively coupled to the first and second closure members, the first actuator being responsive to the air mass sensor to move the first closure member between the first position and the second position.
